



*Kirtland Air Force Base  
Citizen's Advisory Board (CAB)*

*Cesar Chavez Community Center  
7505 Kathryn Avenue SE  
Albuquerque, New Mexico 87108*

*March 13, 2012  
6:00 – 8:00 p.m.*



# ***Agenda***

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- **Introductory Remarks**
    - **Mr. Wayne Bitner, Kirtland Air Force Base**
    - **Dr. Bruce Thomson, UNM Environmental Civil Engineering**
    - **Scott Sudweeks, CDC/ATSDR**
  - **Department of Defense Presentation – Bulk Fuels Facility Update (Site SS-111)**
    - **Colonel Don Conley, Commander, 377th Mission Support Group**
  - **Questions**
  - **Closing Comments**
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# ***Bruce Thomson***

## ***Relevant Experience & Info***

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- **Southeast Heights resident for 26 years**
  - **UNM Prof. of Civil Engineering & Director of Water Resources Program**
  - **Member & Chair (3 terms) ABQ/Bernco/ABCWUA Water Quality Protection Advisory Board 1998 – 2010**
  - **District 5 Director – Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA)**
  - **Contact Information:**  
[bthomson@unm.edu](mailto:bthomson@unm.edu)  
**505-277-4729**
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# ***CDC - ATSDR***

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- **Center for Disease Control (CDC)  
Agency for Toxic Substances & Disease (ATSDR)**
  - **CDC/ATSDR  
4770 Buford Hwy, NE MS F-59  
Atlanta, GA 30341**
  - **Contact Information:**

<b>Scott Sudweeks</b> <b><u><a href="mailto:ssudweeks@cdc.gov">ssudweeks@cdc.gov</a></u></b> <b>(770) 488-1342</b>	<b>Mark Evans</b> <b><u><a href="mailto:mevans@cdc.gov">mevans@cdc.gov</a></u></b> <b>(770) 488-0770</b>
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# ***ATSDR Activities***

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[www.atsdr.cdc.gov](http://www.atsdr.cdc.gov)

## ATSDR Activities:

- Release draft report of evaluation/recommendations for public comment later this year
  - Hold public meeting to present findings answer questions
  - Release final document including public input
  - Attend regular community meetings to address questions and provide information
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# ***Acronyms***

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- **BTEX – Benzene, toluene, ethylbenzene, xylene**
  - **COC – Contaminant of Concern**
  - **CAB – Citizen's Advisory Board**
  - **EDB – Ethylene dibromide**
  - **FFOR – Former Fuel Offloading Rack**
  - **ICE – Internal combustion engine**
  - **DPT – Direct Push Technology**
  - **IM – Interim Measure**
  - **LNAPL – Light Non-Aqueous Phase Liquid**
  - **PBC – Performance Based Contract**
  - **ROI - Radius of influence**
  - **SMWU – Solid Waste Management Unit**
  - **SVE – Soil vapor extraction**
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# ***Bulk Fuels Facility Overview***

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**Colonel Donald Conley**

**377 Mission Support Group**

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# ***Bulk Fuels Facility Overview***

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- **Contract update**
  - **EDB plume characterization update**
  - **Phase II Interim Measure – SVE Treatment System**
  - **Path Forward**
  - **ATSDR Health Risk Assessment**
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# Process Overview

## CHARACTERIZATION

### RCRA Facility Investigation

- ✓ Installation of 78 Groundwater Wells
- ✓ Installation of 35 Soil Vapor Wells
- ✓ DPT Soil Samples at FFOR
- ✓ Installation of 9 Pneulog Wells

### Interim Measures

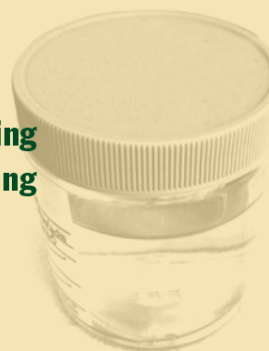
- ICE Unit Operation - Pre-Remedy O&M
- LNAPL Containment
- Soil Removal at FFOR - Phase I Interim Measures
- SVE Treatment System - Phase II Interim Measures

## EARLY/INITIAL TREATMENT

## EVALUATION

### Corrective Measures Evaluations

- ✓ Baildown Testing
  - ROI Testing
  - Quarterly Monitoring
  - Pneulog Well Testing
  - Slug Testing



FEEDBACK

FEEDBACK

**FINAL  
REMEDY**  
REMEDY IN PLACE









# PBC Update



Overall Project Performance Objective:

*Achieve Remedy In Place (RIP) for SMWU's ST-106 and SS-111*

	Interim Performance Milestone	Status
	<b>Investigation of Groundwater</b>	78 Well installation complete – 30 August 2011
	<b>Investigation of Vadose Zone</b>	35 Well installation complete – 29 July 2011
	<b>Vadose Zone Phase I Interim Measure</b>	30 June 2012
	<b>LNAPL Containment</b>	Well installation completed – 16 December 2011
	<b>Phase II Interim Measures</b>	Fall/Winter 2012
	<b>Corrective Measures Evaluation</b>	September 2014



# ***EDB Plume Characterization***

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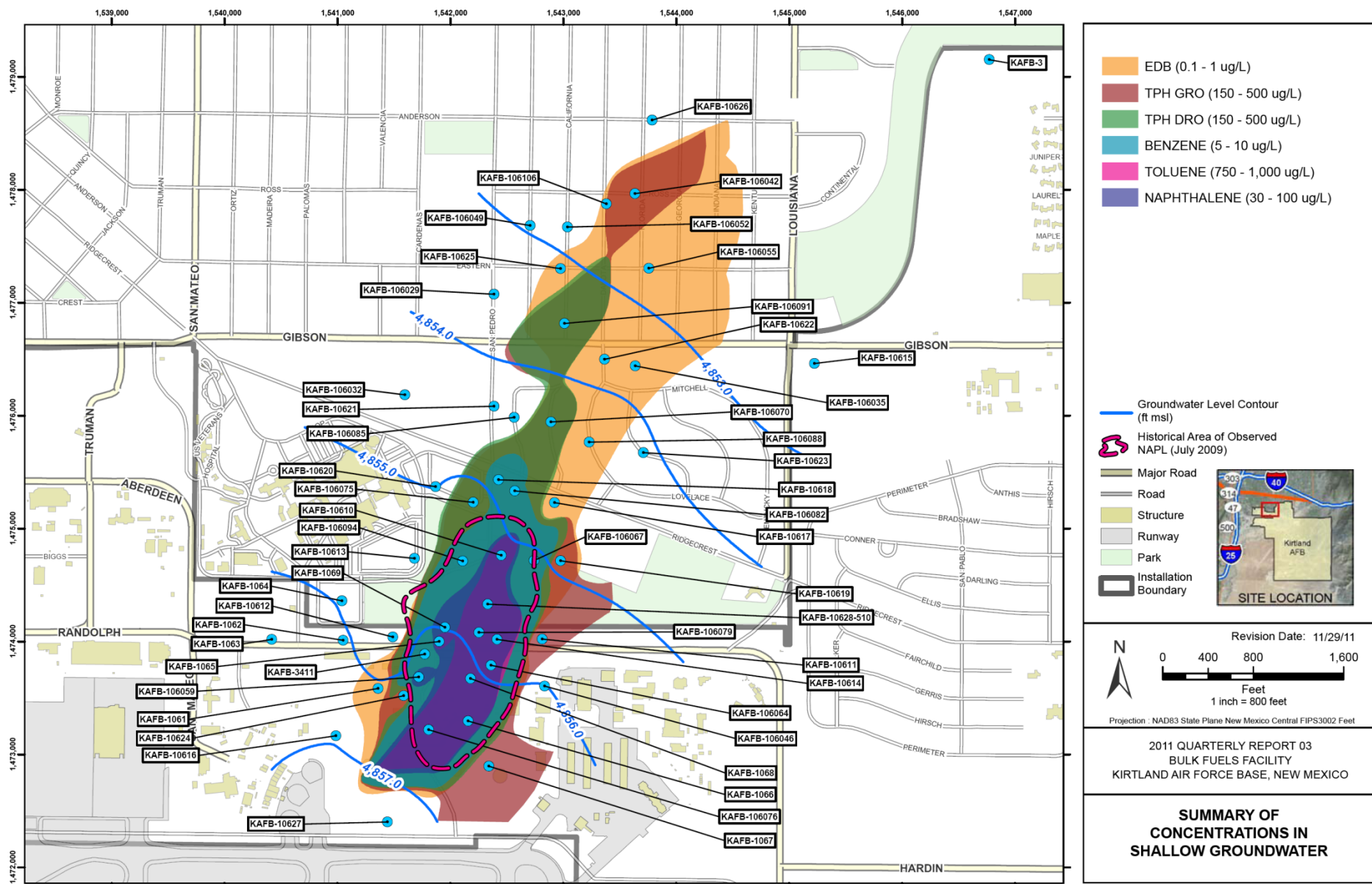


- **Completed installation of 78 groundwater monitoring wells (shallow, intermediate, and deep)**
    - **Approved Groundwater Investigation Work Plan (March 2011)**
  - **Results of Third Quarter 2011 groundwater monitoring provides most complete picture to date of COC plume extents**
  - **Biodegradation apparent for BTEX compounds**
  - **Data Gap exists in downgradient EDB plume characterization**
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# Shallow Wells

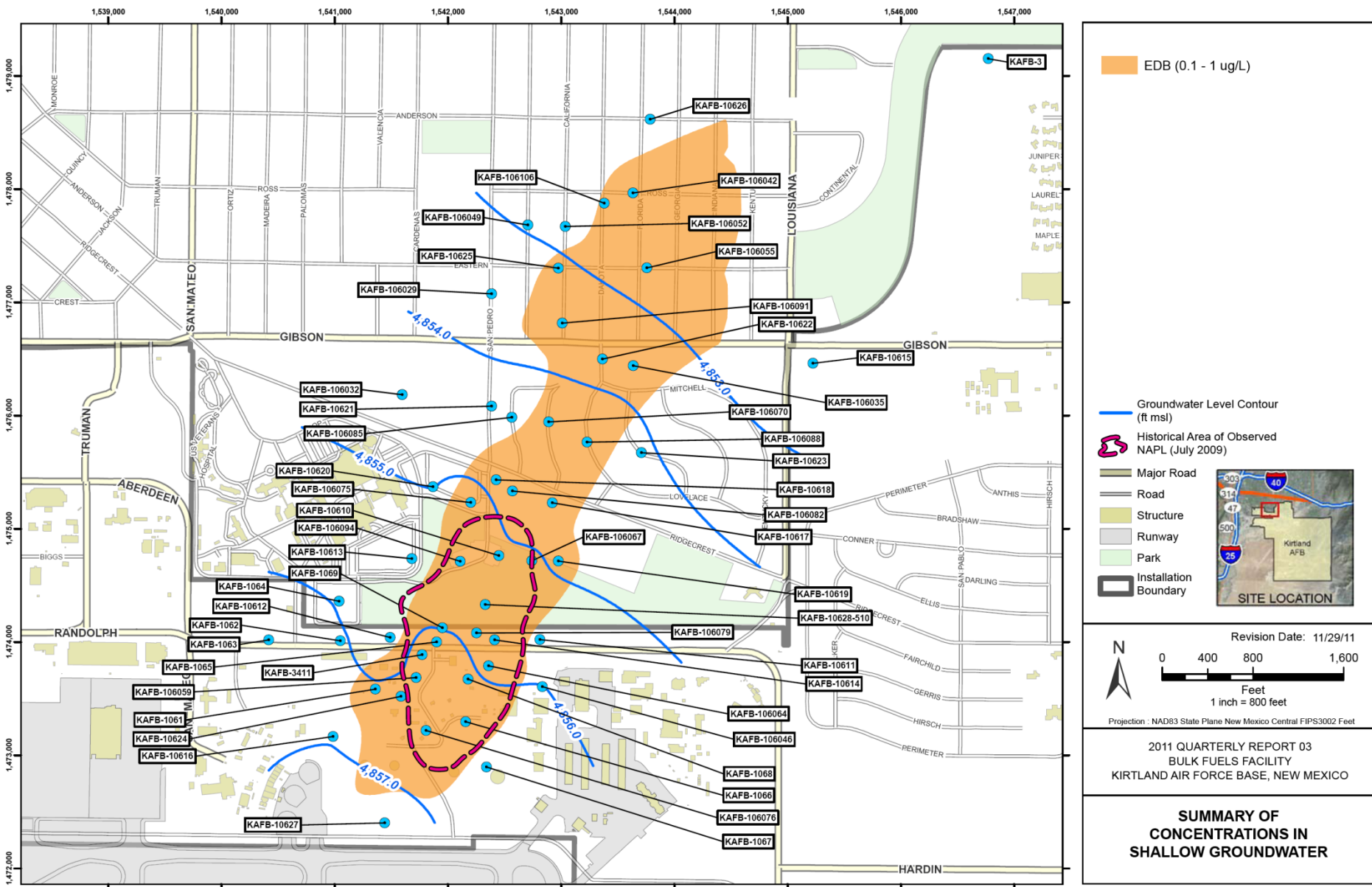
## July-September 2011





# Shallow Wells

## July-September 2011





# ***EDB Characterization***

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- **Letter Addendum Work Plan will be submitted to NMED detailing the three additional well locations**
  - **Held Tiger Team meeting to discuss**
  - **NMED requested additional information prior to commenting on plan**
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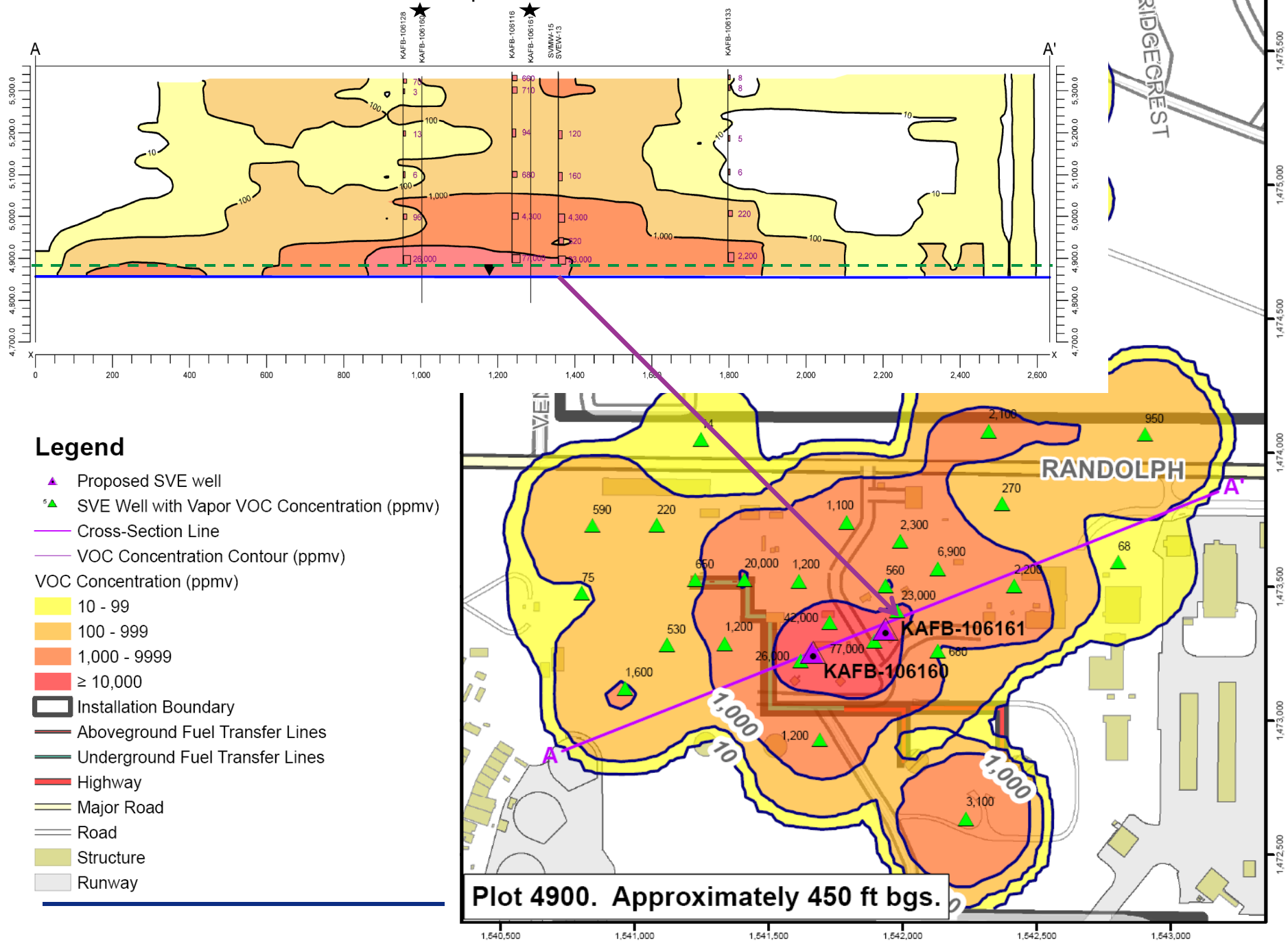
## ***Phase II Interim Measure***

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- **Installed two SVE wells to address vadose zone source area**
  - **Working with treatment system manufacturers to complete system design**
  - **Successfully used a fast-track approach using letter work plan addendums to previously approved work plans**
  - **Will continue collecting and evaluating data to determine need/location of additional SVE systems**
  - **Iterative approach**
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# VOC Vapor Cross-Section A-A'









# Path Forward



## CHARACTERIZATION

### RCRA Facility Investigation

- ✓ Installation of 78 Groundwater Wells
- ✓ Installation of 35 Soil Vapor Wells
- ✓ DPT Soil Samples at FFOR
- ✓ Installation of 9 Pneulog Wells
  - **Additional Groundwater Wells for EDB**

## EVALUATION

### Corrective Measures Evaluations

- ✓ **Baildown Testing**
  - ROI Testing
  - Quarterly Monitoring
  - Pneulog Well Testing
  - Slug Testing
  - **Use Phase II IM to Conduct Extended ROI Testing**
  - **Continue to Evaluate Early Treatment**

### Interim Measures

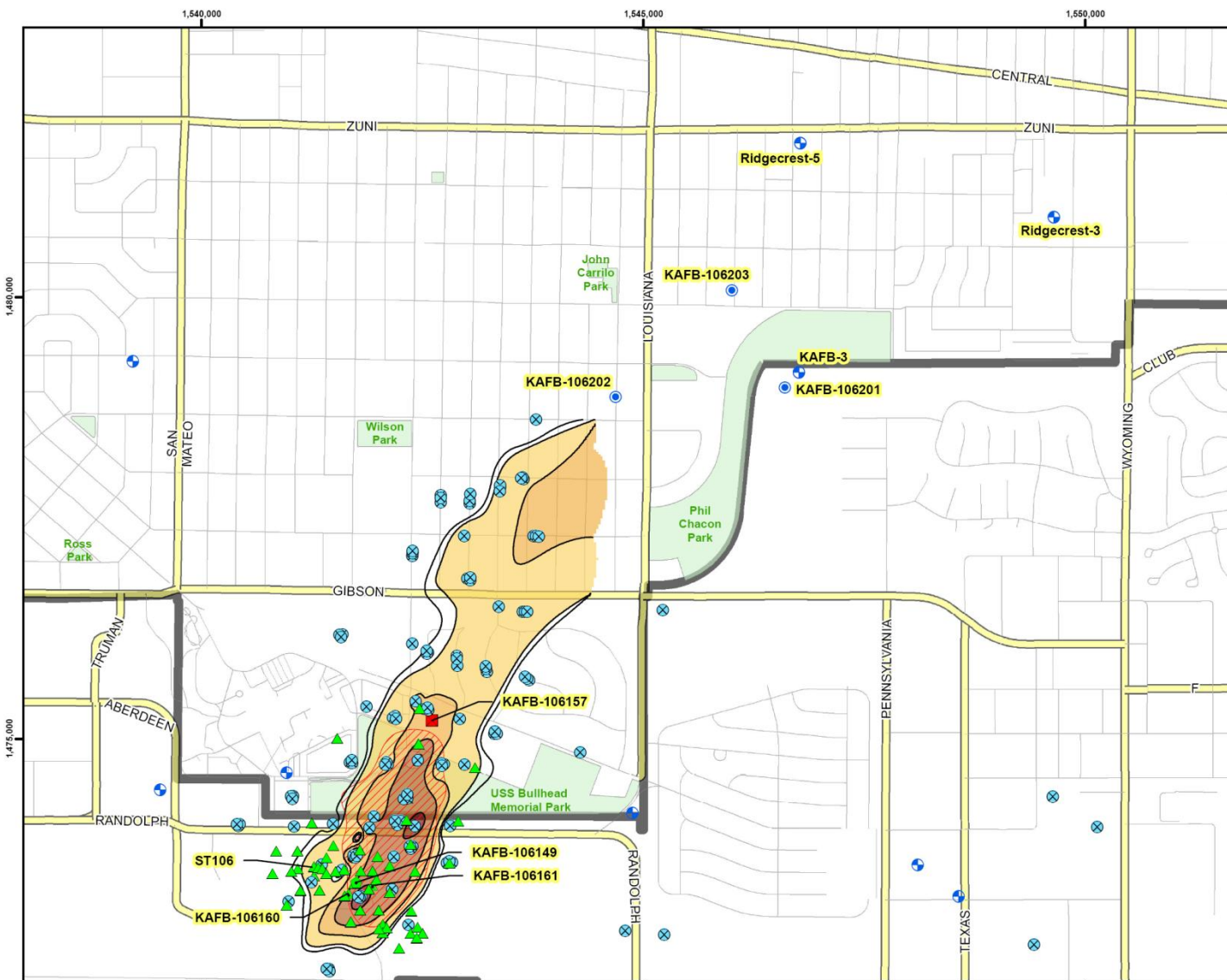
- ICE Unit Operation - Pre-Remedy O&M
- LNAPL Containment
- Soil Removal at FFOR - Phase I Interim Measures
- SVE Treatment System - Phase II Interim Measures
- **Move ICE Units to New SVE Wells**
- **Continue Design of Centralized SVE Treatment System**

## EARLY/INITIAL TREATMENT

## FINAL REMEDY REMEDY IN PLACE



# Path Forward



## Legend

- Containment Well
- SVE Extraction Well
- Pneu Log
- Monitor Well
- SVE Monitor Well
- Water Supply Well
- Detection Piezometer
- NAPL Area
- EDB Concentration (ug/L)
  - 0.05 - 0.1
  - 0.1 - 1
  - 1.0 - 10
  - 10 - 100
  - 100 - 370
- Major Road
- Road
- Park
- Installation Boundary



Revision Date: 03/13/12

0 600 1,200 2,400  
Feet  
1 inch = 1,200 feet

Projection : NAD83 State Plane New Mexico Central FIPS3002 Feet

BULK FUELS FACILITY  
KIRTLAND AIR FORCE BASE, NEW MEXICO

FIGURE 1

PROPOSED DETECTION  
PIEZOMETERS



# ***POINTS OF CONTACT***

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**Dr. Bruce Thomson**  
**[bthomson@unm.edu](mailto:bthomson@unm.edu)**  
**(505) 277-4729**

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**(770) 488-1342**

**Mark Evans**  
**[mevans@cdc.gov](mailto:mevans@cdc.gov)**  
**(770) 488-0770**

**Col. Donald Conley**  
**377 [ABW.pa@kirtland.af.mil](mailto:ABW.pa@kirtland.af.mil)**  
**(505) 846-5991**

Citizens may review Air Force Environmental Restoration Program (ERP) documents at the Kirtland AFB Information Repository (IR) located at the Central New Mexico (CNM) Community College-Montoya Campus Library, 4700 Morris NE, (505) 224-5721

or

by visiting the Kirtland AFB website at <http://www.kirtland.af.mil> in the Environmental Issues section for Public Records.

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# Questions?

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